

AWARD NUMBER: W81XWH-17-1-0254

TITLE: Sputum Biomarkers to Improve CT Screening for the Early Detection of Lung Cancer in Veterans

PRINCIPAL INVESTIGATOR: Feng Jiang

CONTRACTING ORGANIZATION: University of Maryland
Baltimore, MD 21201-1116

REPORT DATE: July 2018

TYPE OF REPORT: Annual report

PREPARED FOR: U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for Public Release;

Distribution Unlimited

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE July 2018		2. REPORT TYPE Annual Phase		3. DATES COVERED 1 July 2017 - 30 June 2018	
4. TITLE AND SUBTITLE Sputum Biomarkers to Improve CT Screening for the Early Detection of Lung Cancer in Veterans				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER W81XWH-17-1-0254	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Feng Jiang E-Mail: fjiang@som.umaryland.edu				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) University of Maryland, Baltimore Department of Pathology (Research) Medical School Teaching Facility, 734C 10 South Pine Street Baltimore, MD 21201-1116				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited					
13. SUPPLEMENTARY NOTES no					
14. ABSTRACT We propose to develop a model for identifying lung cancer in indeterminate pulmonary nodules (PNs) by integrating biomarkers, radiographic features of PNs, and clinical variables of smokers. The project's specific aims are to (1) identify new sputum small noncoding RNA (ncRNA) biomarkers for lung cancer from the PI's previously next-generation sequencing (NGS)-defined small ncRNA profile of lung tumors, (2) validate the previously and newly identified biomarkers and develop a prediction model by integrating the biomarkers with clinical and imaging variables for identifying NSCLC, and (3) blindly validate the prediction model for distinguishing benign from malignant growths in a different cohort of patients with low-dose computed tomography (LDCT)-discovered PNs. The IRB protocol prepared specially for this grant was finally approved by the local VA medical system and the University of Maryland Baltimore in the early of this year. The IRB protocol was submitted to DoD. It now is reviewed. Since the DoD has not approved the IRB yet, we have not started the research experiments. We will start the planed experiments as soon as the IRB is approved by DoD.					
15. SUBJECT TERMS Lung cancer, biomarkers, early detection					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			USAMRMC
	Unclassified	Unclassified	uu Unclassified		19b. TELEPHONE NUMBER (include area code)

Table of contents,

Front cover	Page 1
Standard Form (SF 298)	Page 2
Table Of Contents	Page 3
Introduction	Page 3
Keywords	Page 3
Accomplishments	Page 3
Impact	Page 3
Changes/Problems	Page 3
Products	Page 4
Participants and Other Collaborating Organizations	Page 4
Special Reporting Requirements	Page 4
Appendices	Page 4

Introduction,

The IRB protocol prepared specially for this grant was finally approved by the local VA medical system and the University of Maryland Baltimore in the early of this year. The IRB protocol was submitted to DoD. It is now reviewed. Additional materials are required for HRPO to complete the review of the protocol.

We are preparing the additional materials and will submit them soon.

Since the DoD has not approved the IRB yet, we have not started the research experiments. We will start the planed experiments as soon as the IRB is approved by DoD.

Keywords,

Lung cancer, Veterans, small non-coding RNA, biomarkers, diagnosis.

Accomplishments,

Since the DoD has not approved the IRB yet, we have not started the research experiments. We will start the planed experiments as soon as the IRB is approved by DoD.

Impact,

No

Changes/problems, No.

Products,

No.

Participants and other collaborating organizations,

The Veterans Affairs Maryland Health Care System

The University of Maryland School of Medicine

Special reporting requirements,

No.

Appendices.

No.